

MAGNE-HEAD

DATA BULLETIN



TB

SERIES

ANALOG MAGNETIC TAPE HEADS

FEATURES:

- UNIFORMITY: *Track to track $\pm \frac{1}{2}$ db.*
- SHOCK RESISTANCE: *Engineered to withstand 100 G's.*
- OPERATING TEMPERATURE: *From -55°F to $+185^{\circ}\text{F}$.*
- MOUNTING: *Any physical and mounting configuration.*
- TRACK DENSITY: *To 30 per inch.*
- DESIGNED: *To meet all applicable military specifications.*

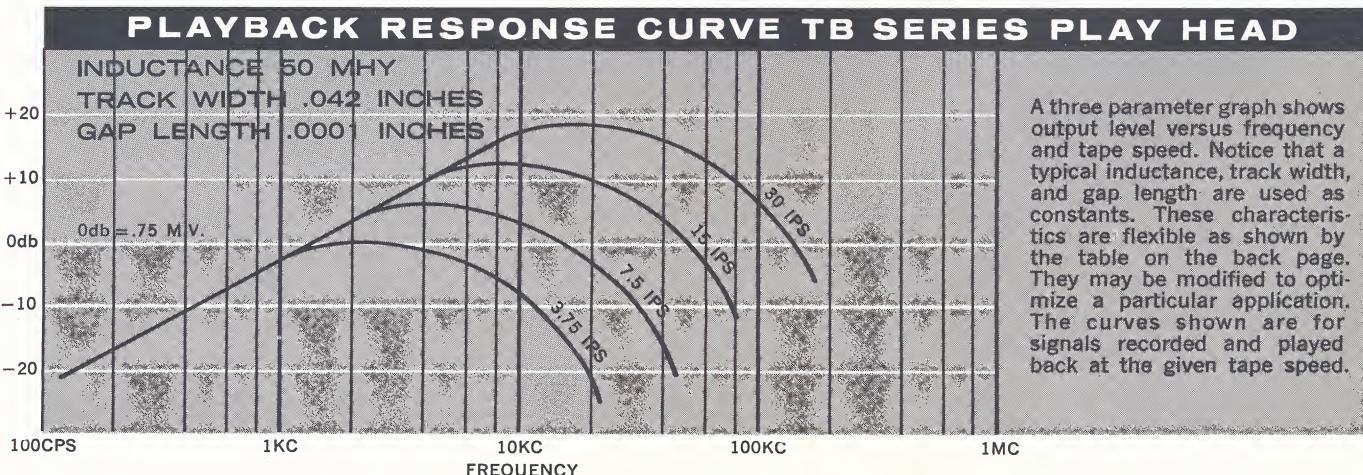
Here is another in the series of Magnetic Analog Tape Heads designed and manufactured by the Magne-Head Division of General Instrument Corporation. The very tight track to track output uniformity available ($\pm \frac{1}{2}$ db) will permit switching of the same record or play amplifier from track to track without changing record or bias current, frequency compensation or pre-emphasis. The high

track density allows a very efficient use of tape recording area and the track density may be increased by interlacing two or more heads. All metal, flush face construction provides longer tape life. Magne-Head has delivered more than 250 types of tape heads to meet varied requirements of military, and commercial applications.

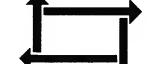


TB-10

10 tracks, $\frac{1}{2}$ " tape 150 mhy per track



S P E C I F I C A T I O N S

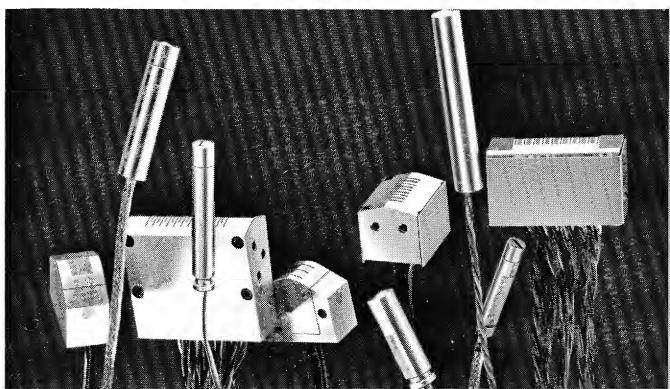
TB SERIES TRACK PER INCH	3	4	5	6	7	8	9	10
TRACK WIDTH MAXIMUM INCHES	.090	.090	.070	.054	.042	.032	.026	.020
TRACK PITCH INCHES	.140	.125	.100	.083	.070	.062	.056	.050
INDUCTANCE MAXIMUM-MILLIHENRIES	1000	800	600	400	300	200	150	150
CROSSTALK MAXIMUM - db	70	60	55	50	45	45	42	40
GAP LENGTH	 20 MICRO INCHES - MINIMUM							
RADIUS	 .125 INCHES - MINIMUM RECOMMENDED FOR REASONABLE HEAD WEAR							
GAP SCATTER	 $\pm .50$ MICRO INCHES - STANDARD $\pm .25$ MICRO INCHES - AVAILABLE							
AZIMUTH	 ± 1 MINUTE - STANDARD $\pm \frac{1}{3}$ MINUTE - AVAILABLE							
MOUNTING	 ANY							

T B S E R I E S A N A L O G M A G N E T I C T A P E H E A D S

Magne-Head is a proven leader in the design and manufacture of magnetic heads for all types of commercial and military applications. A program of continual research enables Magne-Head to offer you the latest developments both in performance standards and packaging design. Our engineers are available to work with you on any magnetic head problem—large or small—from prototype to production. Magne-Head has demonstrated capa-

bilities in design and production for such applications as a satellite-borne telemetry tape recorder, 56-channel in line read-after-write head for magnetic card random access computer memory, shipboard tactical data processing systems, aircraft audio pilot warning device, tape memory for stock exchange quotation device, and heads to operate in radio-active environment.

FOR THE FULL STORY: write or call Magne-Head—area code 213—772-2351/TWX 910-325-6203



- DRUM
- DISC
- DIGITAL TAPE
- CHARACTER RECOGNITION
- MAGNETIC CARDS

MAGNE-HEAD

DATA BULLETIN



TE

SERIES

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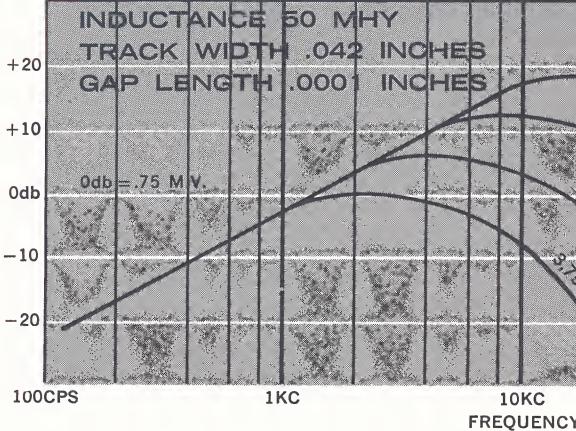
TE-20

20 tracks, 1" tape 150 mhy per track

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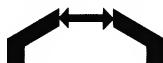
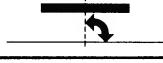
track density allows a very efficient use of tape recording area and the track density may be increased by interlacing two or more heads. All metal, flush face construction provides longer tape life. Magne-Head has delivered more than 250 types of tape heads to meet varied requirements of military, and commercial applications.

PLAYBACK RESPONSE CURVE TB SERIES PLAY HEAD



A three parameter graph shows output level versus frequency and tape speed. Notice that a typical inductance, track width, and gap length are used as constants. These characteristics are flexible as shown by the table on the back page. They may be modified to optimize a particular application. The curves shown are for signals recorded and played back at the given tape speed.

S P E C I F I C A T I O N S

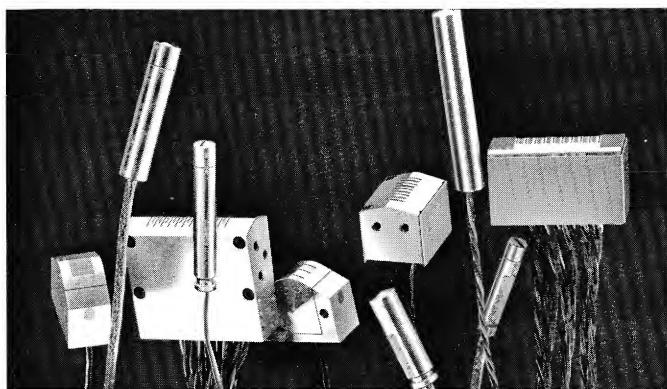
TE SERIES TRACKS PER INCH	7	8	9	10	12	14	15	16	18	20
TRACK WIDTH MAXIMUM-INCHES	.090	.090	.080	.070	.054	.042	.037	.032	.026	.020
TRACK PITCH INCHES	.140	.125	.111	.100	.083	.070	.068	.060	.056	.050
INDUCTANCE MAXIMUM-MILLIHENRIES	800	800	800	600	400	300	225	200	150	150
CROSSTALK MAXIMUM - DB	70	65	60	55	50	45	45	45	42	40
GAP LENGTH	 20 MICRO INCHES - MINIMUM									
RADIUS	 .125 INCHES - MINIMUM RECOMMENDED FOR REASONABLE HEADWEAR									
GAP SCATTER	 ±50 MICRO INCHES - STANDARD ±25 MICRO INCHES - AVAILABLE									
AZIMUTH	 ±1 MINUTE - STANDARD ±1/3 MINUTE - AVAILABLE									
MOUNTING	 ANY									

TE SERIES ANALOG MAGNETIC TAPE HEADS

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- DRUM
- DISC
- DIGITAL TAPE
- CHARACTER RECOGNITION
- MAGNETIC CARDS

MAGNETIC HEAD DESIGN SHEET

APPLICATION: DRUM _____ TAPE _____ CARD _____

MECHANICAL SPECIFICATIONS

RECORDING MEDIUM SPEED _____ (IPS)
RECORDING MEDIUM TYPE _____
TRACK WIDTH _____
NUMBER OF TRACKS _____ PER _____ (INCH)
GAP LENGTH _____
LEADS PER TRACK _____ SHIELDED _____

ELECTRICAL SPECIFICATIONS

INDUCTANCE _____ mH
WRITE CURRENT _____ mA
BIAS CURRENT _____ mA
RECORD FREQ. _____
BIAS FREQ. _____
READ SIGNAL _____ MIN.

REMARKS: — ADDITIONAL REQUIREMENTS — OUTLINE SKETCH — (CONTINUE ON BLANK SHEET IF REQUIRED)

APPLICABLE PRINT NO. _____ AND/OR SPECIFICATION _____ ATTACHED

COMPANY _____ PLANT _____ PHONE NO. _____

SUBMITTED BY _____ DEPT. _____ PHONE EXT. _____

MAGNE-HEAD DIV. GENERAL INSTRUMENT CORP.

13040 SO. CERISE AVENUE • HAWTHORNE, CALIF.

772-2351 679-3377